

Title (en)

TRANSPARENT HEATING APPARATUS HAVING AT LEAST TWO ZONES AT DIFFERENT TEMPERATURES

Publication

EP 0119130 B1 19880629 (FR)

Application

EP 84400417 A 19840302

Priority

FR 8303746 A 19830308

Abstract (en)

[origin: EP0119130A1] 1. A transparent heating apparatus having at least two working zones capable of being heated to different temperatures and comprising : an openable transparent chamber, formed from at least two sealably mating, but separable, parts (20, 21), the said chamber being provided with an orifice (22) connectable to a source of vacuum or to means for introducing an atmosphere, characterized in that it includes heating means comprising at least one transparent, resistive, electrically conductive layer (24, 25, 26) applied on the said chamber, and means for applying an electric current to at least two points spaced apart on the said layer, in a manner such as to allow the chamber to be heated by Joule effect, at least one portion of the surface of the chamber being without a resistive, electrically conductive layer, and in that it further includes at least one electrical heating element (60) supplied independently with electrical energy and carried on the said portion of the surface of the chamber not having a resistive, electrically conductive layer, the said element comprising a transparent substrate overlaid on its internal surface with a transparent, resistive, electrically conductive layer, and the said substrate having the form of a plate or a cylindrical section.

IPC 1-7

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IPC 8 full level

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Citation (examination)

- Gmelins Handbuch der anorganischen Chemie (1972), Vol. 46, page 61
- Ullmanns Encyklopädie der technischen Chemie, 4ième édition, Vol. 15, page 131

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